



# **AVIATION MAINTENANCE SAFETY CONFERENCE**

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**2004**

# **COMMAND SAFETY SPECIALIST**

**(PETTY OFFICER OR NCO)**

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## **TOPICS OF DISCUSSION:**

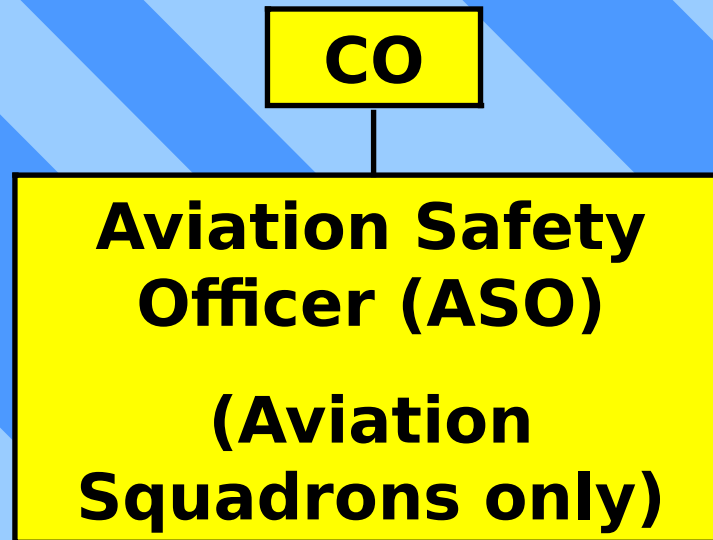
- **REFERENCES**
- **CHAIN OF COMMAND**
  - **QUALIFICATIONS**
  - **RESPONSIBILITIES**
- **HAZARD ABATEMENT**
- **EYEWASH STATIONS**
- **INDUSTRIAL HYGIENE (IH) SURVEY**

# REFERENCES

- **OPNAVINST 3750.6R**
- **OPNAVINST 4790.2H**
- **OPNAVINST 5100.23F**
- **OPNAVINST 5100.19D**
- **VARIOUS NAVOSH RELATED PUBLICATIONS AND INSTRUCTIONS**

# **SAFETY PROGRAM**

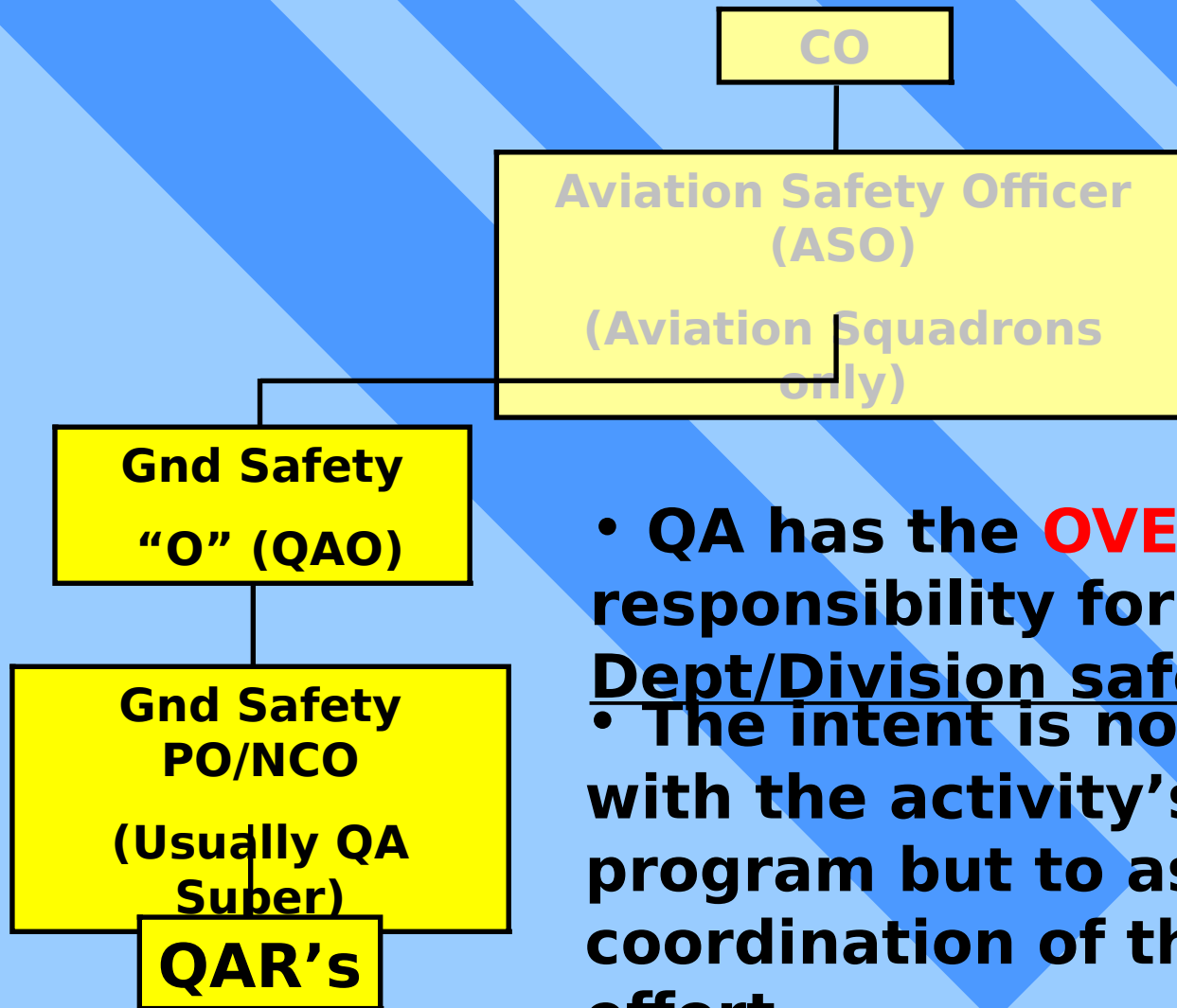
## **"CHAIN OF COMMAND"**



**“CO’s shall describe their command’s safety organization, define its requirements, and delineate the functions of each member of their safety organization.”**

**OPNAVINST 3750.6R, CH. 2, para. 204**

# SAFETY PROGRAM "CHAIN OF COMMAND"

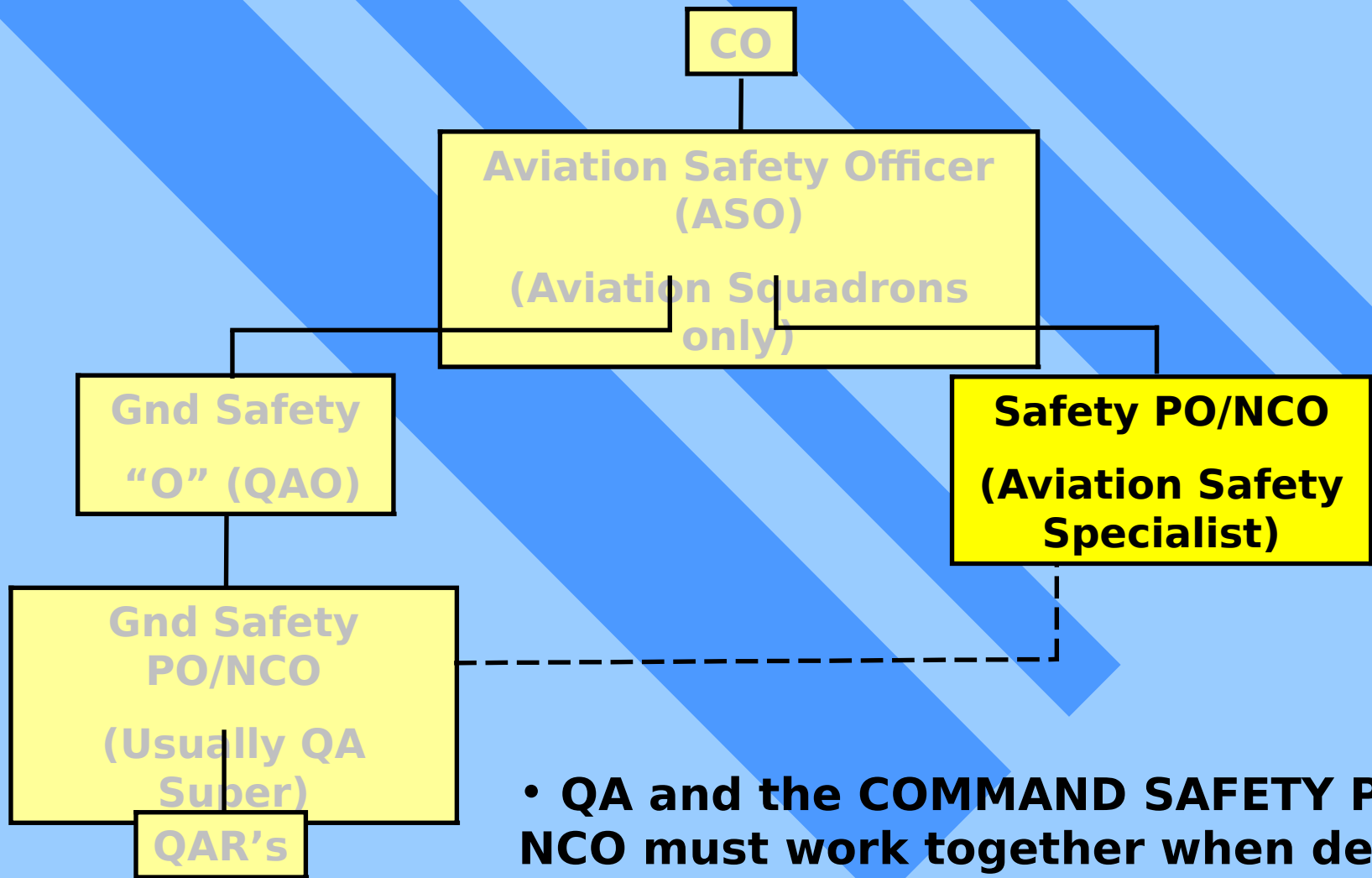


- QA has the **OVERALL** responsibility for Maintenance Dept/Division safety.
- The intent is not to conflict with the activity's overall safety program but to assist in coordination of the total safety effort.

(OPNAVINST 4790.2H, VOL. I, para. 14.8.2 b)

# **SAFETY PROGRAM**

## **"CHAIN OF COMMAND"**



• QA and the **COMMAND SAFETY PO / NCO** must work together when dealing with safety issues to ensure an effective overall activity safety program.

# **SAFETY PROGRAM**

## **"CHAIN OF COMMAND"**

### **COMMAND SAFETY PETTY OFFICER / NCO**

#### **TRAINING REQUIREMENTS:**

- **Be a graduate of AVIATION SAFETY SPECIALIST (A-493-0065) course within 6 months of assignment.**

**(OPNAVINST 3750.6R, CH. 1, para. 107.h.(3))**

- **Be a graduate of the Introduction to Navy Occupational Safety and Health (Ashore), (A-493-0050) or equivalent course prior to assignment.**

**(OPNAVINST 5100.23F, CH. 6, para. 0602.e.(2))**

# **SAFETY PROGRAM "CHAIN OF COMMAND"**

## **COMMAND SAFETY PETTY OFFICER / NCO**

### **ADDITIONAL TRAINING:**

- **Additional training courses for NAVOSH professionals or personnel assigned collateral duties as NAVOSH professionals can include but are not limited to:**

- **NAVOSH Assessment Tools and Strategies (A-493-0089)**
- **General Industry Standards (A-493-0061)**
- **Electrical Safety Standards (A-493-0033)**

**NOTE:** **Introduction to Industrial Hygiene (A-493-0035)**  
**All courses may be scheduled through the NAVOSHENVTRACEN website <[www.norva.navy.mil/navosh](http://www.norva.navy.mil/navosh)>**

- **Additional web based training can be done at [www.navylearning.navy.mil](http://www.navylearning.navy.mil)**



# **SAFETY PROGRAM "CHAIN OF COMMAND"**

## **COMMAND SAFETY PETTY OFFICER / NCO**

### **RESPONSIBILITIES:**

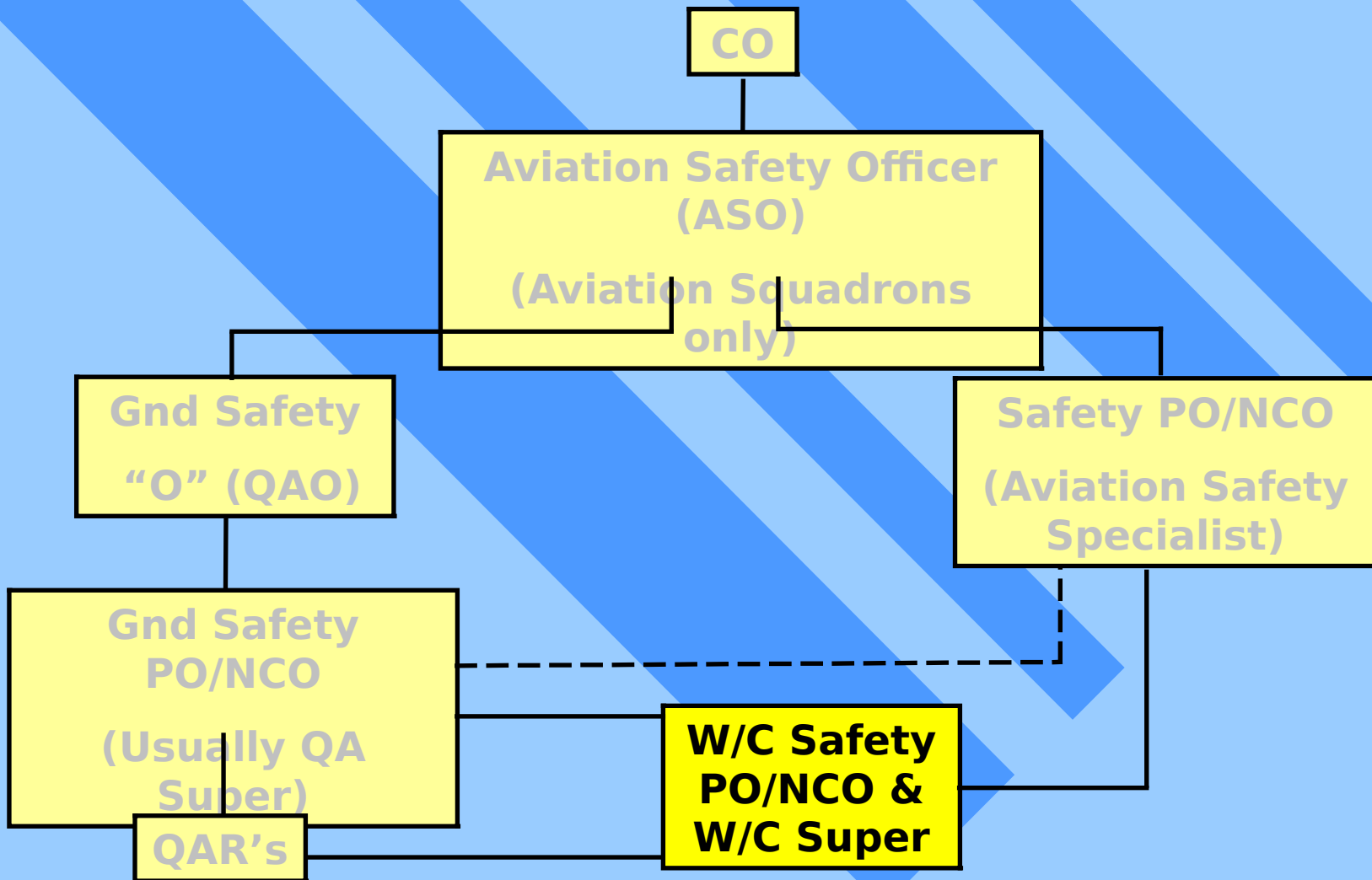
- Assess risks and ensure all hazard areas and equipment are labeled as identified by the Industrial Hygienist**
- Provide training to work center personnel in mishap prevention**
- Monitor surveillance programs such as Hearing Conservation, Sight Conservation, Respiratory protection, Lead, etc.**

# **SAFETY PROGRAM "CHAIN OF COMMAND"**

## **COMMAND SAFETY PETTY OFFICER / NCO**

- Provide safety indoctrinations for newly assigned personnel**
- Ensure the proper PPE is utilized and maintained in a clean, serviceable condition**
- Ensure all machine guards are in place and safety precautions posted**
- Investigate and maintain records of all injuries and mishaps**

# SAFETY PROGRAM "CHAIN OF COMMAND"



# **SAFETY PROGRAM**

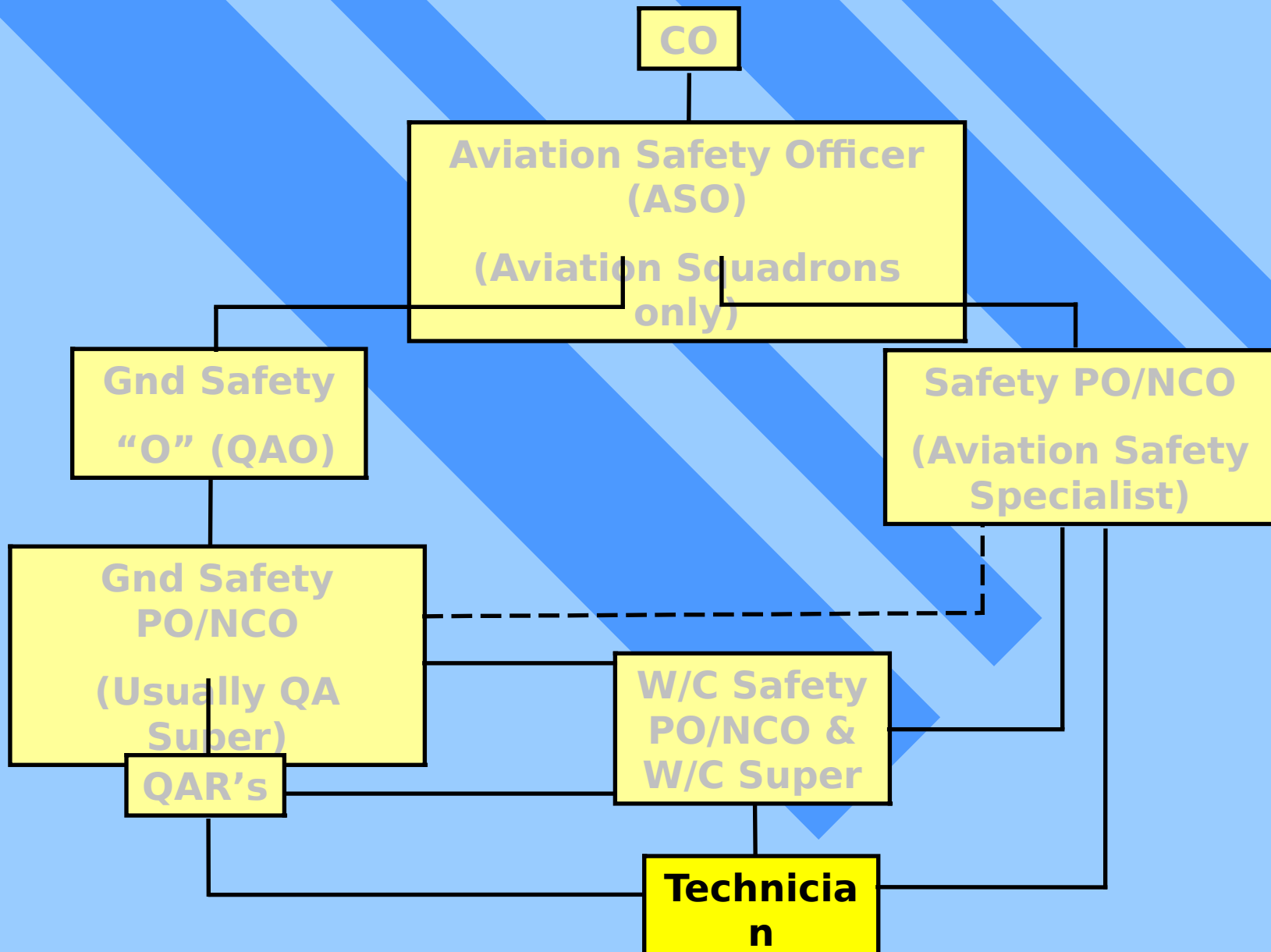
## **"CHAIN OF COMMAND"**

### **W/C SUPERVISOR and/or SAFETY PO/NCO**

- **“Division CPOs or NCOICs, LPOs or NCOs and Work Center Supervisors must recognize the responsibility incumbent upon the safety petty officers or NCOs and assist when required in correcting hazardous situations.”**
- **“Safety Petty Officers or NCOs must be guided by a strict sense of responsibility and remain alert to any possibility of an unsafe situation before it develops.”**  
**(OPNAVINST 4790.2H, VOL. I, para. 16.1.3.c)**

# **SAFETY PROGRAM**

## **"CHAIN OF COMMAND"**



# **SAFETY PROGRAM**

## **"CHAIN OF COMMAND"**

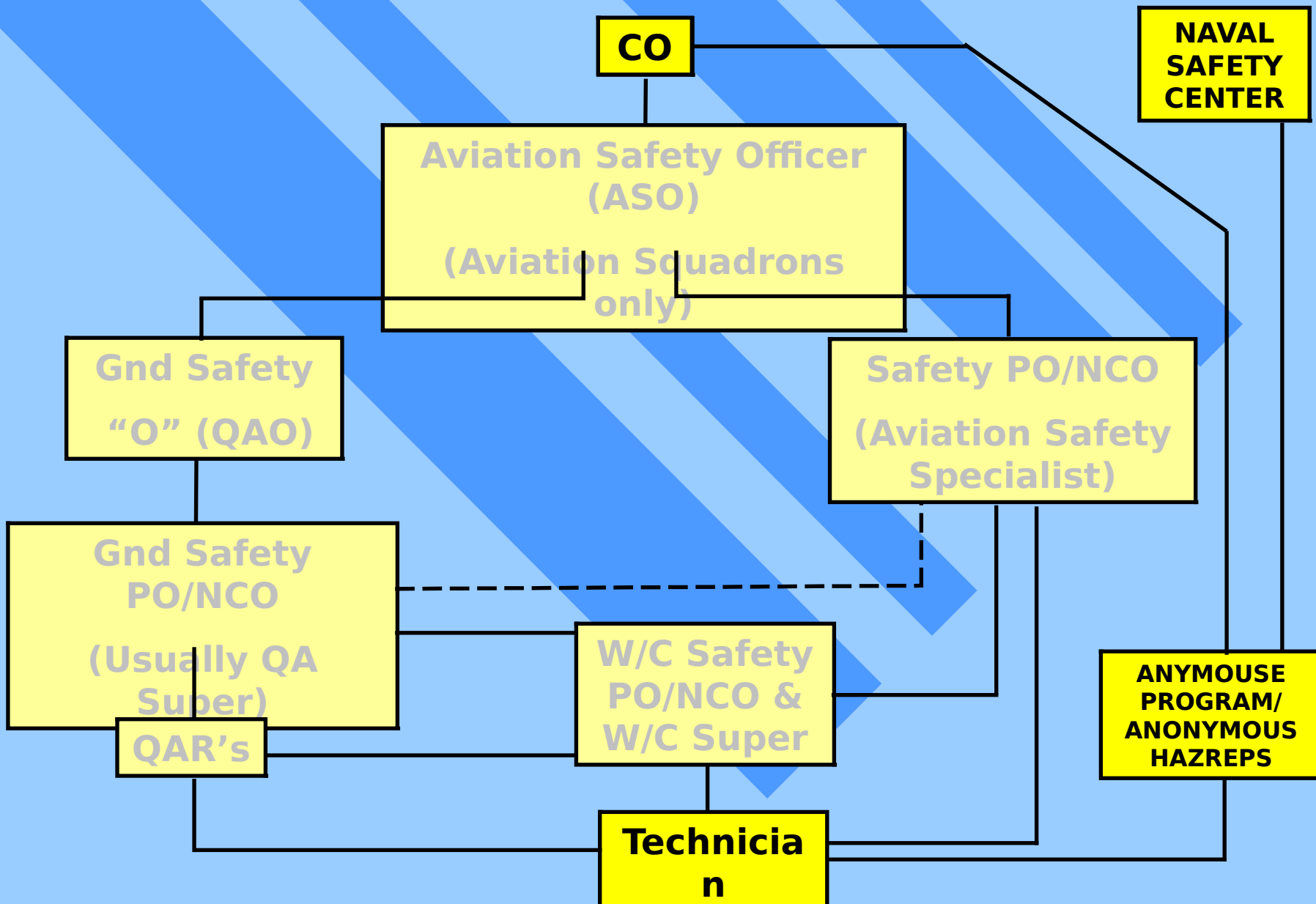
### **TECHNICIAN**

**“Effectiveness and safety result when properly trained personnel use properly designed equipment per established procedures under competent and persistent supervision. It requires active participation by all personnel on a daily basis to obtain desired results.”**

**(OPNAVINST 4790.2H, VOL. I, para. 14.8.2 &  
16.10.4)**

# **SAFETY PROGRAM**

## **"CHAIN OF COMMAND"**



# **SAFETY PROGRAM**

## **"CHAIN OF COMMAND"**

### **"ANYMOUSE" PROGRAM/ANONYMOUS** **HAZREP**

- **All commands shall provide a system for anonymously reporting hazards**
- **Provides a means for individuals reluctant to identify themselves, direct access to the Commanding Officer to express concerns about safety matters**
- **Anonymous Hazard Reports are for Activities or individuals reluctant to identify themselves or their command**

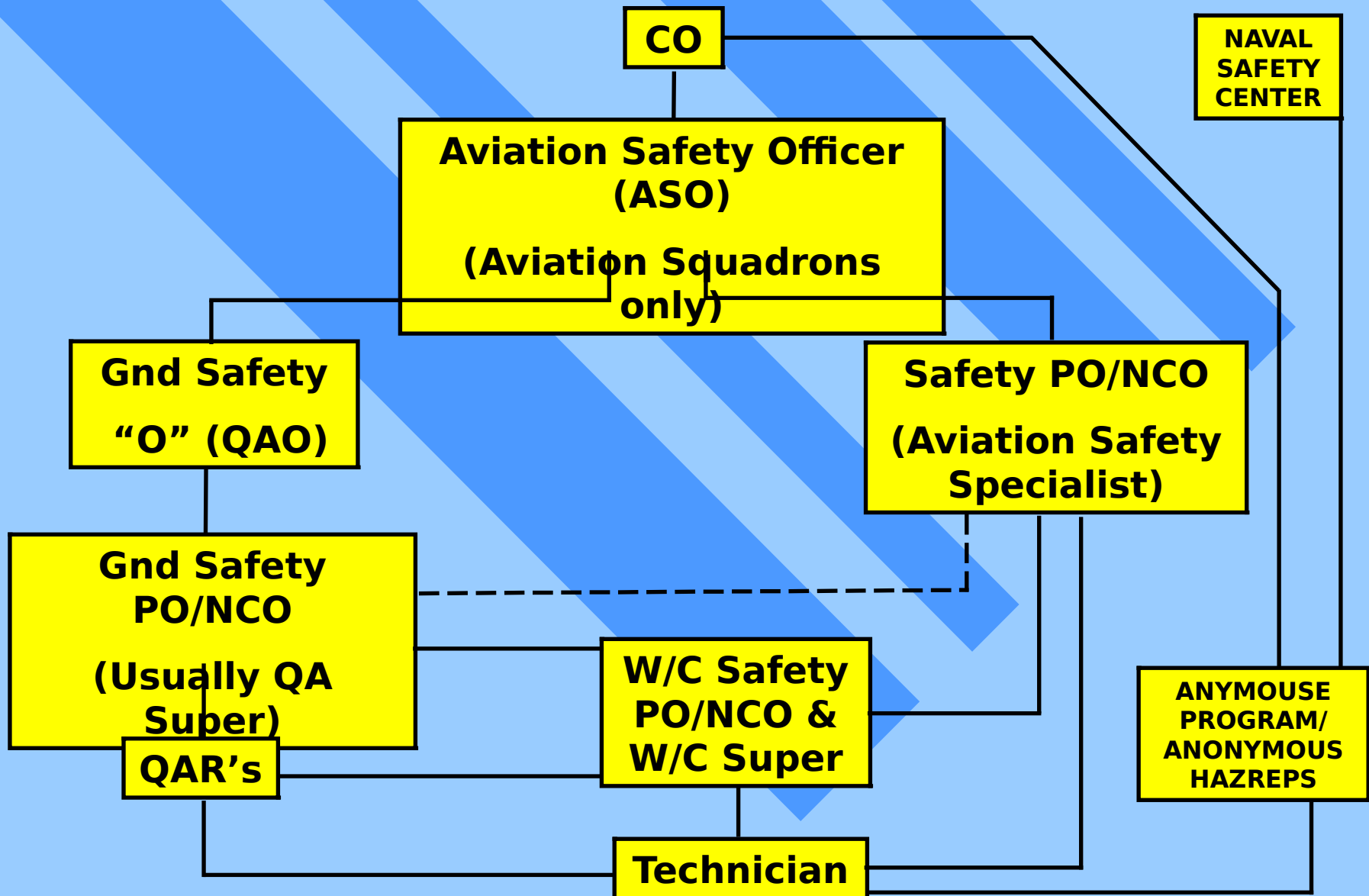
**(OPNAVINST 3750.6R, CH. 2, para. 205.o & CH. 4, para. 401.c)**

**(OPNAVINST 5100.23F, CH. 10)**



# **SAFETY PROGRAM**

## **"CHAIN OF COMMAND"**



# **SAFETY PROGRAM**

## **"CHAIN OF COMMAND"**

**“An effective Command Aviation Safety Program supports the objectives of the Naval Aviation Safety Program. Their goals are parallel: to eliminate hazards and enhance the safety awareness of all hands. To accomplish this we must detect and eliminate hazards, concentrate on safety awareness training, and enforce the highest possible standards of conduct and performance.”**

**(OPNAVINST 3750.6R, CH. 2, para. 0201)**



# HAZARD ABATEMENT



**“Aviation safety seeks to identify and eliminate hazards.”**





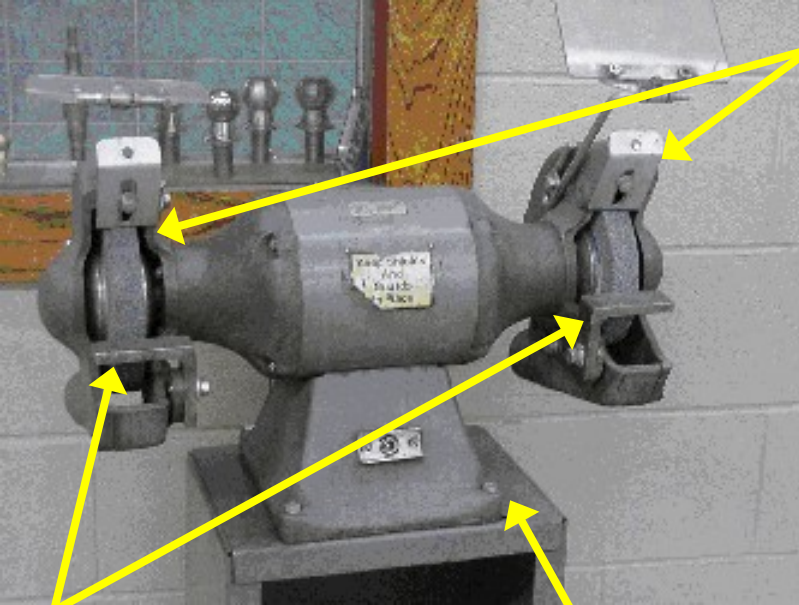
# **36" CLEARANCE AROUND CIRCUIT BREAKER PANELS**

**(NEC 110-26, 29 CFR  
1910.303(g) & 29 CFR  
1926.403(i))**

**Easily accessible fire  
extinguishers**

**(29 CFR 1910.157.  
(C).(1))**





**ADJUSTABLE  
TONGUE GUARD-  
 $\frac{1}{4}$ " OF WHEEL**

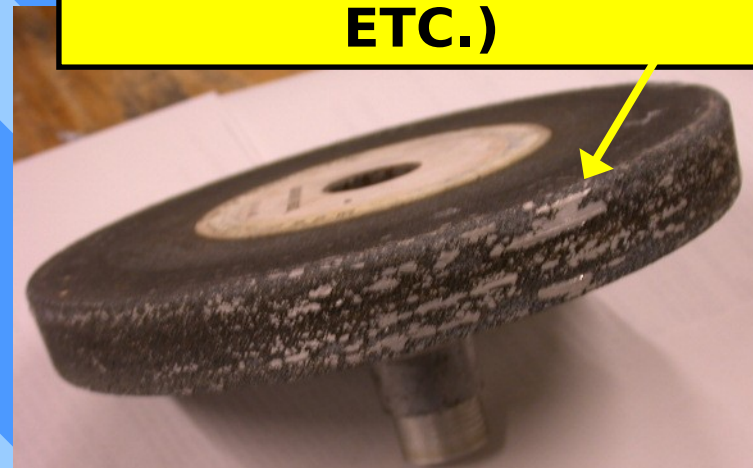
**TOOL REST-  
 $\frac{1}{8}$ " OF  
WHEEL**

**SECURELY  
MOUNTED**

## **ABRASIVE WHEEL MACHINERY**

**29 CFR 1910.215**

**GRINDING OF NON-  
FERROUS MATERIALS  
(NON-SPARKING-  
ALUMINIUM,  
PLEXIGLAS, BRASS,  
ETC.)**







**Broken back shell on electrical cord exposed live wires. Bench powered by this cord was not working until worker moved cord while retrieving work boots close by.**

**(NEC 110-27(b);  
29CFR1910.303(g)(2)(ii);  
29CFR1926.403(I)(2)(ii))**

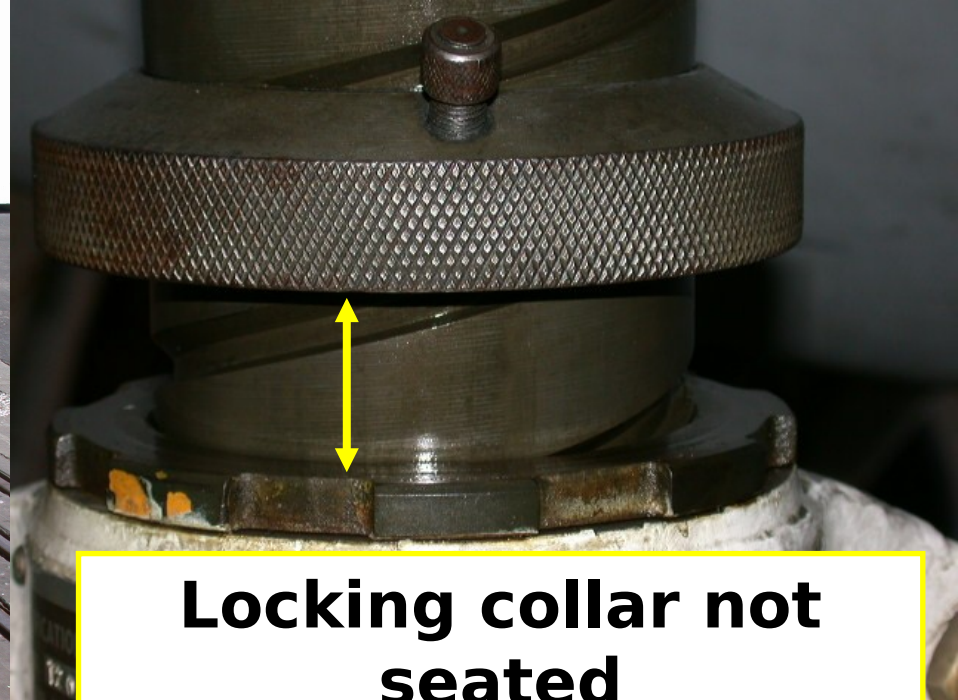
- Live electrical outlet directly beneath portable eyewash station.**
  - Drainage from eyewash station may splash into exposed outlets cause electrocution hazard.**
  - FOD can within 30"**
- (NEC 110.3 General Duty**







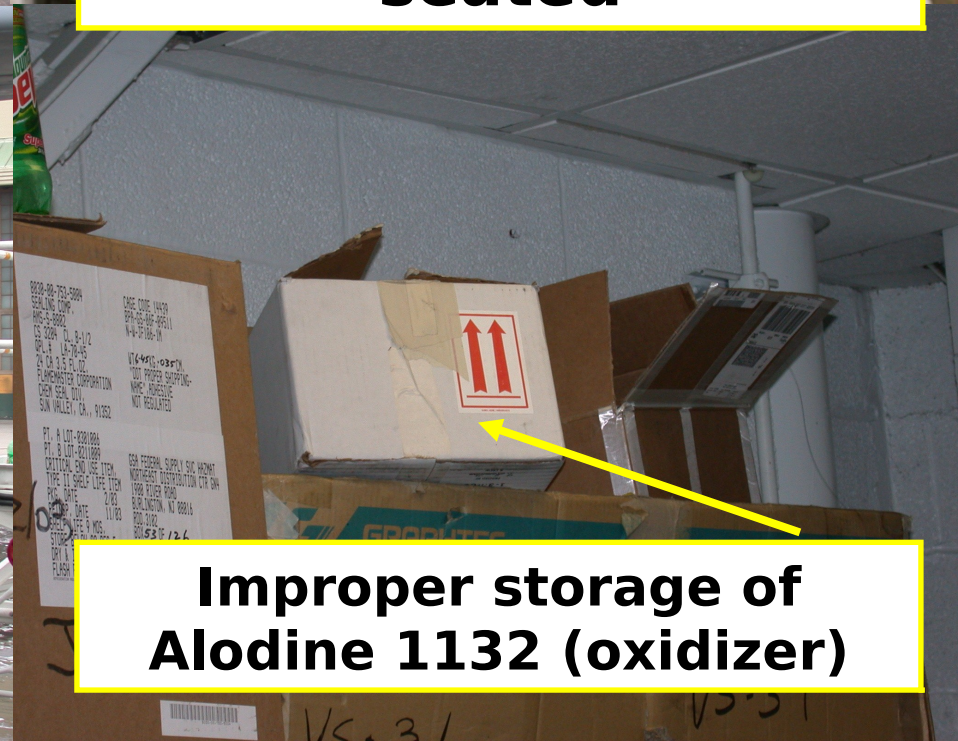
**Improper handling**



**Locking collar not seated**



**PPE not being used**



**Improper storage of Alodine 1132 (oxidizer)**

# HAZARD ABATEMENT

- **NAVOSH POLICY-** To provide a safe and healthful workplace for all personnel.  
(OPNAVINST 5100.23F, para. 0104)
- **Purpose of Hazard Abatement is to identify hazards and correct them before they become mishaps.**

## **What is a hazard?**

- **A work place condition that might result in injury, occupational illness or death, or damage/loss to property/equipment.**

(OPNAVINST 5100.23F, glossary)



# HAZARD ABATEMENT

- **Commands shall identify hazardous conditions through the following methods:**
  - **Workplace inspections**
    - ❖ **W/C Supervisor/Safety PO**
    - ❖ **Command Safety PO**
    - ❖ **NAVOSH/OSHA Professionals**
  - **Employee hazard reports**
    - ❖ **Anymouse**
    - ❖ **Anonymous Hazard Reports**
  - **Industrial Hygiene Reports (IH Surveys)**

# HAZARD ABATEMENT

## Workplace inspections:

- Inspections are conducted annually or more often for high hazard areas by qualified NAVOSH personnel
- Commands are responsible for correcting hazards with a Risk Assessment Code (RAC) of 1 (critical), 2 (severe) or 3 (moderate) immediately
- Work center supervisors and Safety PO/NCOs shall conduct daily hazard assessments.

# **HAZARD ABATEMENT**

- Inspection results shall be maintained for a minimum of 5 years**
- Ensure compliance with Occupational Safety and Health (OSH) programs**
- Ensure all practical controls (Engineering, Administrative & PPE) are being observed and utilized as required.**

# **HAZARD ABATEMENT**

- **Various types of inspecting activities**
  - **Industrial Hygienist**
  - **Environmental and Base Safety**
  - **Base Fire Marshal**
  - **Inspector General (IG)**
  - **Naval Safety Center**

# HAZARD ABATEMENT

- Hazards may exist because of the following conditions:
  - Bad or poor designs
  - Improper work or operational practices and procedures (LCPs, SOPs, Instructions)
  - Poor training or inadequate preparation
  - Out-of-date instructions and publications
  - Operational environment demanding and unforgiving

# HAZARD ABATEMENT

- **Commands can reduce or prevent hazards by:**
  - Isolating hazardous substances, components and operations from other activities, areas, personnel or incompatible materials
  - Relocating equipment/components to prevent personnel for exposure
  - Posting suitable warnings, cautions and marking equipment
  - Requiring the use of PPE when controls do not reduce hazard

**(OPNAVINST 5100.23F, CH. 5, CH. 9 & CH. 8)**

# **GENERAL HAZARDS OF AIRCRAFT MAINTENANCE**

**WORK HABITS INCLUDE PPE, ATTITUDE  
ABOUT THE JOB AND SAFETY AWARENESS.**

**GOOD WORK HABITS ARE A LITTLE HARDER  
TO FORM BECAUSE OF THE LITTLE EXTRA  
THINGS YOU HAVE TO DO BUT THE  
DIVIDENDS PAY OFF.**

# **GENERAL HAZARDS OF AIRCRAFT MAINTENANCE**

## **SOME THINGS TO REMEMBER:**

- **WEAR PPE.**
- **DON'T WEAR RINGS, BRACELETS, WATCHES, NECKLACES OR OTHER JEWELRY ON THE JOB.**
- **WARN OTHERS OF HAZARDS THEY MIGHT NOT BE AWARE OF.**
- **FORM SAFE WORK HABITS. DO THE LITTLE EXTRA.**
- **DON'T TAKE SHORTCUTS!**



# **GENERAL HAZARDS OF AIRCRAFT MAINTENANCE**

- **DON'T JURY RIG OR BYPASS SAFETY DEVICES.**
- **USE THE MIMS/MRC'S TO BE SURE HOW TO DO THE JOB.**
- **DON'T OPERATE SE OR OTHER EQUIPMENT YOU'RE NOT LICENSED FOR OR QUALIFIED TO OPERATE.**
- **STAND CLEAR OF EXHAUSTS, INTAKES AND PROP/ROTOR ARCS.**
- **REPORT UNSAFE CONDITIONS, EQUIPMENT OR ACTIONS TO YOUR SUPERVISOR OR SAFETY PO IMMEDIATELY.**

# EYE WASH STATIONS

## STANDARDS:

**\*ANSI Z358.1-1998**

**\*MINIMUM CLEARANCE OF 30"**

**\*LOCATED WITHIN 10 SEC ON SAME LEVEL**

**\*LOCATED WITHIN STRAIGHT LINE &  
OBSTACLE FREE**

# EYE WASH STATIONS

## MAINTENANCE:

**\*PLUMBED: FLUSHED WEEKLY >3 MIN**

**\*PORTABLE: FLUSHED QUARTERLY OR AS PER MANUFACTURER RECOMMENDATIONS WHICHEVER IS MORE FREQUENT.**

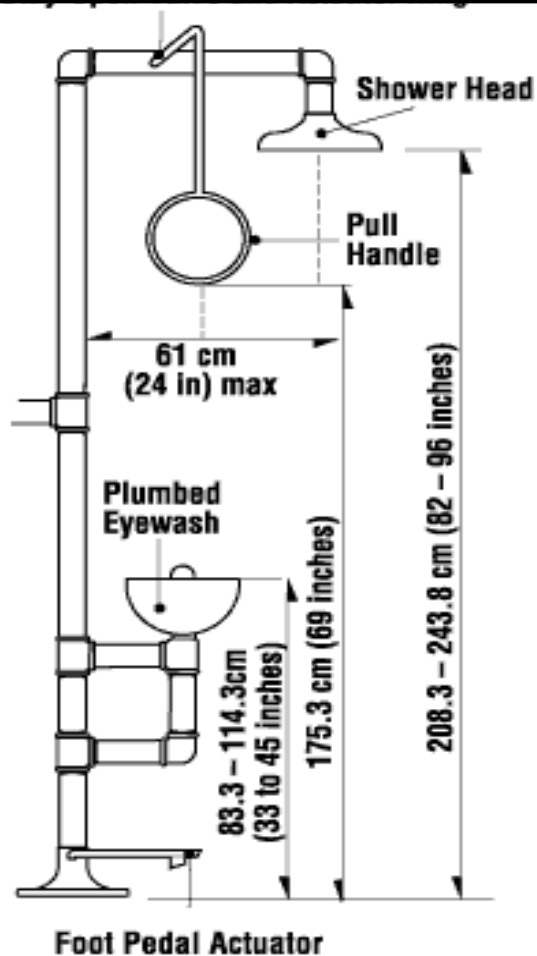
## SHIPBOARD:

- MAINTAINED AS PER SHIP'S PMS.**

**(OPNAVINST 5100.19D, CH. B5, para. B0508 a)**

# SAFETY STATION

(COMBO  
EYEWASH/SHOWER  
)



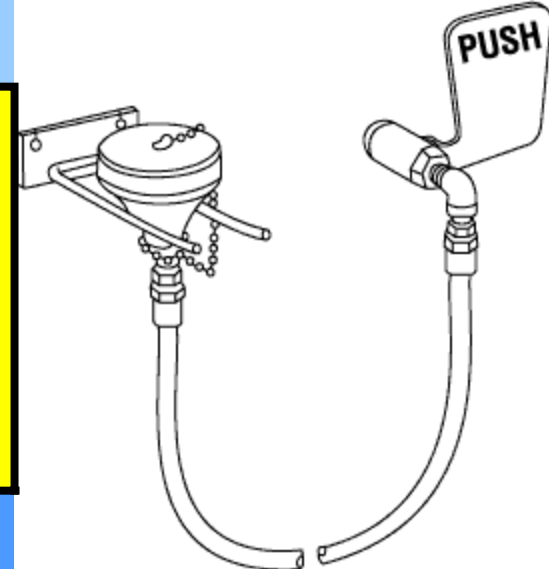
## EYE WASH BOTTLES



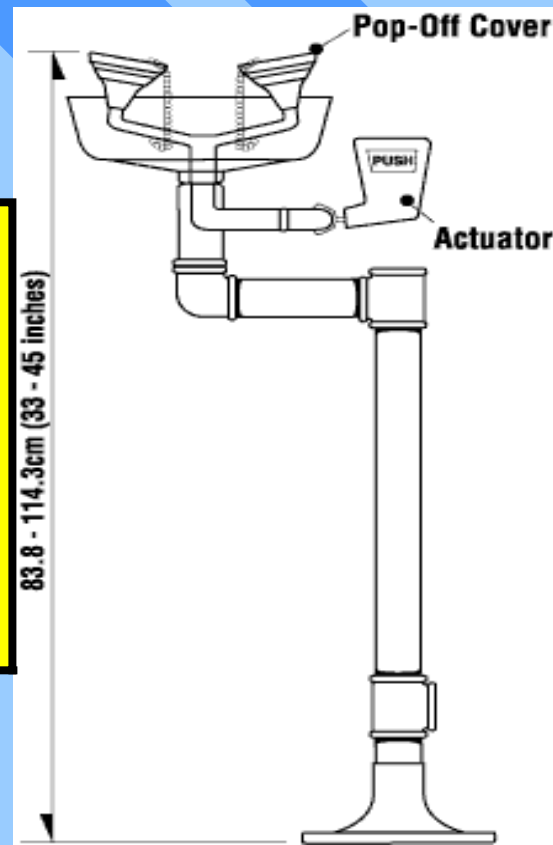
## PORTABLE EYEWASH



## D E L U G E



## E Y E W A S H

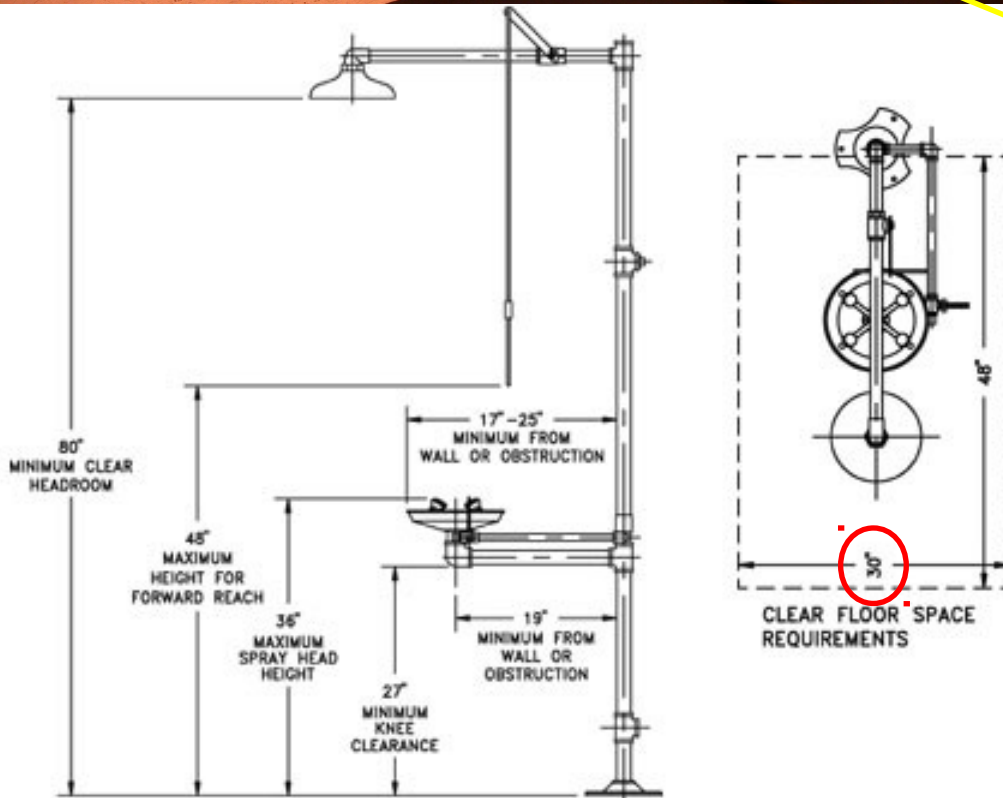




**Trip hazards**

**Barrier free  
emergency  
eyewash  
stations**

**(ANSI Z358.1)**



# **INDUSTRIAL HYGIENE (IH)**

- Industrial Hygiene survey reports document the interpretation of data collected during the workplace walk-through**
- IH survey reports are historical documents that shows the operations conducted at given locations and the hazards present**
- IH survey reports are self-supporting, stand alone documents**

# INDUSTRIAL HYGIENE (IH)

- **IH survey report elements:**

- 1) Cover letter**

- 2) Executive Summary**

- **Overview of the initial status of the command's OSH programs**

- **Lead, Hearing, Respiratory**

**Protection**

- 3) Program Findings and**

**Recommendations**  
- **Summaries of major OSH programs**

# **INDUSTRIAL HYGIENE (IH)**

- **IH survey report elements:**
  - 4) Workplace Evaluations and Exposure Monitoring Plan**
    - **Workplace assessment**
    - **Description of Operations**
    - **Chemical and Physical hazards**
    - **Existing controls**
    - **HM AUL and Reproductive Hazards and carcinogens**

**(Industrial Hygiene Field Manual, App. 2-A)**



# **INDUSTRIAL HYGIENE (IH)**

- **Suggest posting copies in work centers**
- **Hold training on IH survey to include**
  - **Content**
  - **Location (suggest posting on Standing R.R.)**
- **Hazards**
- **An excellent source document to provide training and work center indoctrination for new technicians**

# SUMMARY

- **The Chain of Command is there to help if you let it**
- **Training on hazards, hazard identification and abatement procedures is the key to a safe working environment**
- **Overall, a PROACTIVE approach to safety by all hands is a MUST!**
- **Visit our website at [www.safetycenter.navy.mil](http://www.safetycenter.navy.mil) for additional training topics, information and program reference guides.**



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**QUESTIONS?**

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